APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 7 MAR 2008

B. ST LOUIS DISTRICT OFFICE, FILE NAME, AND NUMBER: MVS-2008-120

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Missouri County/parish/borough: St. Louis City: Maryland Heights

Center coordinates of site (lat/long in degree decimal format): Lat. 38.7310467742212° **N**, Long. -90.4431623329986° **W**.

Universal Transverse Mercator: 15

Name of nearest waterbody: Fee Fee Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Missouri River

Name of watershed or Hydrologic Unit Code (HUC): Lower Missouri

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: 06 MAR 2008

☒ Field Determination. Date(s): 07 MAR 2008

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply): [1]

☐ TNWs, including territorial seas

☐ Wetlands adjacent to TNWs

☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs

☐ Non-RPWs that flow directly or indirectly into TNWs

☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

☐ Impoundments of jurisdictional waters

☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: 1060 linear feet: 10-12 width (ft) and/or 0.29 acres.

Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: **Established by OHWM.**

Elevation of established OHWM (if known): .

2. Non-regulated waters/wetlands (check if applicable):[3]

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:.

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.

[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 68,814 **acres**
Drainage area: 91 **acres**
Average annual rainfall: 29 inches
Average annual snowfall: 12 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** tributaries before entering TNW.

Project waters are **2-5** river miles from TNW.
Project waters are **1 (or less)** river miles from RPW.
Project waters are **2-5** aerial (straight) miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:.
Identify flow route to TNW[5]: Hollybrook Tributary flows to Fee Fee Creek to Creve Coeur Creek then to the Missouri River.
Tributary stream order, if known: 2nd order.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: Hollybrook Tributary has been channelized. A concrete box culvert exists in the upper reaches and in the lower portion has been concrete lined before draining beneath Interstate-270.

Tributary properties with respect to top of bank (estimate):
Average width: 25.4 feet
Average depth: 5-10 feet
Average side slopes: **2:1.**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☒ Concrete
☒ Cobbles	☒ Gravel	☐ Muck
☐ Bedrock	☒ Vegetation. Type: Forested/Non-native Scrub/Shrub - % cover: 65%	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

The channel is in an urbanized setting and has been straightened, confined, and isolated from its floodplain. The stream reach is bound by Intersate-270 and residental structures. The streambank is high with steep slopes. Exposed water and sewer lines indicate the channel invert has dropped since the placement of the utility lines. Verticle banks typically consist of approximately one foot of topsoil underlain by a cohesive clay layer. While the exposed clay layer limits streambank erosion, several large vegetated blocks have degraded and fallen into the channel. In part, this may be due to frost heave and lateral cutting because of channel inversion as well as the lack of floodplain to convey flow. In areas of higher velocities, the streambed consists of small gravel with fine silt sediments that produce higher rates of streambank erosion and lateral cutting. Within the affected reach, the upstream portion has been altered by a box culvert and the downstream portion, prior to drainage beneath Interstate-270, has been concrete lined and channelized.

Presence of run/riffle/pool complexes. Explain: The site has limited pool and riffle complexes.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): 5%

(c) Flow:

Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **20 (or greater)**
Describe flow regime:.
Other information on duration and volume: .

Surface flow is: **Confined.** Characteristics:.

Subsurface flow: **Unknown**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[6] (check all indicators that apply):

☒ clear, natural line impressed on the bank	☒ the presence of litter and debris
☒ changes in the character of soil	☒ destruction of terrestrial vegetation
☒ shelving	☐ the presence of wrack line
☒ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☒ scour
☒ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain:

Hollybrook tributary is situated in an urbanized setting bordered by Interstate-270 and residential developments. The stream system has been modified by past land development activities and is devoid of any floodplain. Most flow within the channel is a result of stormwater runoff generated from the adjoining interstate and the residential development. A concrete box culvert lies within the upstream portion of the project site that conveys flow from the bordering Brookmont residential development.

The effects of channelization and urbanization have resulted in stream channel inversion and erosion within the reach. Although specific pollutants were not observed within the channel, it is anticipated the watercourse is the recipient of non-point source discharges including fertilizers, pesticides, oil residue, and other pollutants that are common to urban environments. These pollutants are capable of being transported downstream to Fee Fee Creek as they are carried in suspension in stormwater. Because of channel characteristics and close proximity to Fee Fee Creek and the Missouri River there is a high potential for these downstream waters to be effected by non-point source discharges stemming from Hollybrook Tributary. Decreased water quality leads to increased expenses for treating drinking water supplies, as well as effects water chemistry which stresses aquatic and terrestrial biota thereby disrupting the food chain.

Identify specific pollutants, if known:

(iv) Biological Characteristics. Channel supports (check all that apply):

☒ Riparian corridor. Characteristics (type, average width): Forested and Non-native Scrub/Shrub. 10-feet.
☐ Wetland fringe. Characteristics:.
☐ Habitat for:
- ☐ Federally Listed species. Explain findings: .
- ☐ Fish/spawn areas. Explain findings: .
- ☐ Other environmentally-sensitive species. Explain findings: .
- ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres
Wetland type. Explain:.
Wetland quality. Explain:.

Project wetlands cross or serve as state boundaries. Explain:.

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain:.

Surface flow is**: Pick List**
Characteristics:.

Subsurface flow: **Unknown**. Explain findings: .
☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting
☐ Not directly abutting
- ☐ Discrete wetland hydrologic connection. Explain:.
- ☐ Ecological connection. Explain: .
- ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.
Project waters are **Pick List** aerial (straight) miles from TNW.
Flow is from: **Pick List.**
Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:.

Identify specific pollutants, if known:.

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain:.
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**
Approximately () acres in total are being considered in the cumulative analysis.
For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed:.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

Hollybrook Tributary is characterized as a seasonally flowing relatively permanent stream with the presence of an Ordinary High Water Mark (OHWM). Baseline channel morphology and drainage patterns indicate Hollybrook Tributary is a second order tributary. West of the project site, Hollybrook Tributary combines with Fee Fee Creek and then flows to Creve Coeur Creek - a primary tributary to the Missouri River. Hollybrook Tributary is approximately 4.4 river miles from the Missouri River. Based on the USGS topographic map, National Wetland Inventory Map, aerial photos, and information provided by the applicant, this intermittent stream lies within an approximate 91-acre catchment of the Lower Missouri Watershed. Although residential development within the project site has resulted in channel alterations, clear evidence of flow supports the establishment of an OHWM. Evidence within the stream channel includes sediment deposition, presence of litter and debris, shelving, and a clear line impressed on the bank.

Average annual rainfall of the area is 29 inches. Hollybrook Tributary experiences rapid peak flows generated from stormwater runoff and topography changes that quickly recede following precipitation events. Flow then returns to a continuous, but persistent base level within the stream reach. Most flow within the channel is a result of stormwater runoff generated from the adjoining interstate and the residential development. A concrete box culvert lies within the upstream portion of the project site that conveys flow from the bordering Brookmont residential development. Only during drought and atypical dry conditions the tributary becomes devoid of any flow.

The volume of water that flows through the tributary is sufficient to transport pollutants and floodwaters to Fee Fee Creek and subsequently into the Missouri River. It is anticipated that the on-site tributary contributes to the chemical make up of Fee Fee Creek, through its ability to convey sediments and nutrients during and after precipitation events. Although specific pollutants were not observed within the channel, it is anticipated that the watercourse is the recipient of non-point source discharges including fertilizers, pesticides, oil residues, and other pollutants that are common to urban environments. These pollutants are capable of being transported downstream to Fee Fee Creek and Creve Coeur Creek as they are carried in suspension in stormwater.

Because of channel characteristics and close proximity to Fee Fee Creek and the Missouri River there is a high potential for these downstream waters to be effected by non-point source discharges stemming from Hollybrook Tributary. Decreased water quality leads to increased expenses for treating drinking water supplies, as well as effects water chemistry which stresses aquatic and terrestrial biota thereby disrupting the food chain. Alterations to the physical environment of Hollybrook Tributary would reduce the amount of organic carbon and increase the transport of chemicals as well as potentially cause nutrient loading in Fee Fee Creek and eventually the Missouri River. As a second order stream, Hollybrook Tributary improves water quality by diluting direct and indirect pollutants from runoff and provides processed leaf litter and organic matter which are important to sustaining biologic communities in Fee Fee Creek, Creve Coeur Creek, and the Missouri River.

Hollybrook Tributary is surrounded by a limited riparian area supporting an uneven aged mix of woody trees and non-native herbaceous plant species. Riparian conditions extend an approximate 5 to 10 foot buffer on each side of the steep stream channel. Because of the considerable level of urban development surrounding the stream the limited riparian conditions still provide a natural filter for water quality, providing shading to control water temperature, supply a continual source of organic material, and support the existing channel integrity for the conveyance of flow to downstream waters. Organic input consists of leaf litter and coarse woody debris. Combined, organic interactions and improvements in water quality and stream channel conditions provide habitat for aquatic fauna that depend upon seasonally flooded habitat for advancement in their life cycle. In turn, aquatic fauna contribute to the overall biodiversity of the watershed by fitting into the complex food web of Fee Fee Creek and the Missouri River. Additionally, terrestrial fauna including mammals and passerines benefit from the interconnected stream corridors that create edge habitat, travel matrixes, and supply cover and food sources.

It has been determined that Hollybrook Tributary maintains connectivity to Fee Fee Creek and the Missouri River, thereby providing a significant nexus between the seasonally flowing relatively permanent water and the Missouri River. Hydrologic connectivity refers to the flow that transports floodwaters, organic matter and nutrients, energy, and supports ecological functions within the watershed.

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   ☐ TNWs: linear feet width (ft), Or, acres.
   ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:

Hollybrook Tributary is characterized as a seasonally flowing relatively permanent stream with the presence of an Ordinary High Water Mark (OHWM). Baseline channel morphology and drainage patterns indicate Hollybrook Tributary is a second order tributary. West of the project site, Hollybrook Tributary combines with Fee Fee Creek and then flows to Creve Coeur Creek - a primary tributary to the Missouri River. Hollybrook Tributary is approximately 4.4 river miles from the Missouri River. Based on the USGS topographic map, National Wetland Inventory Map, aerial photos, and information provided by the applicant, this intermittent stream lies within an approximate 91-acre catchment of the Lower Missouri Watershed. Although residential development within the project site has resulted in channel alterations, clear evidence of flow supports the establishment of an OHWM. Evidence within the stream channel includes sediment deposition, presence of litter and debris, shelving, and a clear line impressed on the bank.

Average annual rainfall of the area is 29 inches. Hollybrook Tributary experiences rapid peak flows generated from stormwater runoff and topography changes that quickly recede following precipitation events. Flow then returns to a continuous, but persistent base level within the stream reach. Most flow within the channel is a result of stormwater runoff generated from the adjoining interstate and the residential development. A concrete box culvert lies within the upstream portion of the project site that conveys flow from the bordering Brookmont residential development. Only during drought and atypical dry conditions the tributary may become devoid of any flow. An existing condition hydraulic model was completed using the HEC-RAS 3.1.3 software package. Cross sections of the stream reach were developed using survey information completed by the applicant's agent. Out of 12 surveyed channel stations, the following average

values were identified for Hollybrook Tributary: 8.5 fps channel velocity, 2.4 lb/ft2 channel shear, 5.4 average depth, and a 25.4 average bank top width. Hydraulic information combined with the existing channel condition and the 91-acre urban drainage area indicates this tributary has persistent flow well exceeding 3 months.

☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs[8] that flow directly or indirectly into TNWs.

☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.[9]

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Attachments and Site Studies in Permit Submittal.
☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps:.
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: 1:24000 Creve Coeur Quad.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: St. Louis County Soil Survey.
☒ National wetlands inventory map(s). Cite name: USFWS Wetland Mapper.
☐ State/Local wetland inventory map(s):.
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): 2007 NAIP Image, 1-m resolution.
or ☒ Other (Name & Date): Site photographs submitted in delineation report.
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify):.

B. ADDITIONAL COMMENTS TO SUPPORT JD:.